REMARKS

Claims 1 – 4, 7-19 and 21-38 are pending in the application.

Claim Rejections – 35 USC 103

In this section of the official action, Claims 1 – 8, 16 – 22 and 34-35 were rejected under 35 USC 103(a)as being unpatentable over Mitchell et al U.S. Patent 5,963,966 in light of Langford Wilson US Patent No. 5,953,733. Favorable reconsideration of this rejection is respectfully requested since, as will be shown below, the above amendments distinguish inventively over the combination taught by the Examiner.

The present embodiments relate to a system for using artificial understanding of document structure in order to understand the separate parts of a document and the internal structures of those parts. The system is then used to parse documents, use a marking system to mark the structure on the documents and then use the marking to republish the original document in a second format. Typically the original document is divided into pages, articles, pictures, pictures with articles, articles with headlines, articles with headlines and a by line, articles with headlines, by line and and a picture, and the like. The document could be a newspaper, a company financial report, or any kind of structured document. The final published format is an interactive document, typically for use as a web page. The automatic parsing of the present embodiments allows the structural subunits, the blocks, of the original document to be the interactive objects of the web page. Thus a particular block, comprising a headline, by line, text and a photograph, is identified automatically as belonging together. The block is defined as a single object, and the text etc as internal structure thereof. The parser classifies the headline using an XML

label, the by line likewise, the text likewise and the picture likewise, and then the publisher knows that the entire object should be presented visually as it appears in the original newspaper page. However it also knows how to set up the headline as a hypertext link to lead to a larger size version of the full text so that the text can be read. Likewise it knows how to set up the picture as a link that can be clicked on to lead to a larger view of the picture. The by-line may be treated separately to provide a link to other articles by the same author. The result is a fully interactive version of the original document. In summary the interactive version of a multi-element document is arrived at by reverse engineering (parsing) of the original document, leading to XML labeling of the document parts to represent blocks and internal structure of the blocks, the labeling used as directions by a publisher to publish an interactive version of the document.

By contrast, Mitchell et al teaches page decomposition into text and graphics only. The identified parts are indexed. Once the page has been decomposed then optical character recognition is used to convert the text into electronic form. Finally publishing of the document is carried out by a human editor using the authoring environment of Fig. 3.

Langford-Wilson teaches a system by which text and images can be prepared for publishing. There is no parsing of a document. Rather there is a layout database comprising different layout arrangements or designs to which text, pictures, headlines and the like can be applied. That is to say there is a database of templates into which data to be published can be applied.

Neither citation teaches recognition of blocks having *internal* structure, as required by the independent claims as amended. At most Mitchell simply identifies text, but it does not recognize structure *within* the text such as headlines, by lines and

the like. Neither citation teaches labeling of that *internal* structure. Neither citation teaches automatic publishing based on labels of internal structure. Neither does the combination of Mitchell and Langford-Wilson suggest such features since neither document deals with internal structure or automatic recognition thereof.

Indeed the contribution of Langford-Wilson to Mitchell is to teach *away* from the invention as claimed in the amended claims. Whereas Mitchell at least teaches recognition of text and picture elements of the original text, Langford-Wilson does not teach building of those elements into a publication format incorporating the structure earlier identified. On the contrary, Langford-Wilson teaches shoehorning the articles into one of the structures in its layout database. Such in fact defeats the object of the present embodiments which is to provide automatic online reproduction of the original documents. That is to say Langford-Wilson teaches ignoring the original structure of the documents and rather the use of its own formats as illustrated in any of Figs 1-7 therein. There is no teaching in Langford-Wilson of any kind of awareness of an original structure to preserve, nor is there any awareness in this citation of how such a feat might be achieved.
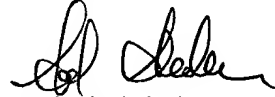
The above applies to independent claims 1, 19, 24 and 25. All claims dependent thereon are believed to be allowable as being dependent upon an allowable main claim.

Claim 23 is rejected over Mitchell and Langford-Wilson in light of Votipka, US Patent No. 6,185,589. The arguments given above in respect of claims 1, 19, 24 and 25 are believed to apply in the same way to claim 23 as amended, such that the inventive distinction pointed out above still applies where combined with Votipka. That is to say the combination of Mitchell, Langford-Wilson and Votipka fails to teach parsing of a document having blocks and substructure within the blocks to label

the substructure, and then using the labeling in automatic publishing of the document as objects so that the initial structure is present in the objects.

All of the matters raised by the Examiner have been dealt with and are believed to have been overcome. In view of the foregoing, it is respectfully submitted that all the claims now pending in the application are allowable over the cited reference. An early Notice of Allowance is therefore respectfully requested.

Respectfully submitted,

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